1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with the predetermined apparatus;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations; and

establishing a communication link connecting said information processing apparatus to the predetermined apparatus based on said telephone number if a predetermined position on said displayed information is indicated and said predetermined position is associated with said telephone number.

REMARKS

Favorable reconsideration of the above-identified patent application in light of the foregoing amendment and the following remarks is respectfully requested.

Claims 1-2, 4-5, 7-8, 10-21 and 23-25 remain active in the application.

The Office Action dated January 25, 2002, included rejections under 35 U.S.C. § 103 of the following claims by the corresponding listed reference(s), all of which references are cited for the first time in this prosecution:

- 1, 2, 4, 5 — RFC 1738 in view of U.S. Patent No. 6,275,290 (Mattaway *et al.*)
- 7, 8 — Mattaway *et al.* in view of RFC 1738
- 10 — Mattaway *et al.*
- 11 — Mattaway *et al.* in view of U.S. Patent No. 5,732,133 (Mark)
- 12 — Mattaway *et al.* in view of RFC 1738
- 13 — Mattaway *et al.* in view of U.S. Patent No. 4,585,904 (Micone *et al.*)
- 14, 15, 16 — Mattaway *et al.* in view of U.S. Patent No. 5,835,724 (Smith)
- 17, 18, 19 — Mattaway *et al.* in view of RFC 1738
- ***20, 21*** — ***(not mentioned in body of Office Action; "rejected" on Form PTO-326)***
- 23, 24, 25 — Mattaway *et al.* in view of RFC 1738

The examiner has withdrawn all previously-asserted art rejections, and accordingly the present (third) Office Action is non-final.

Before responding to the rejections, Applicant briefly recapitulates: a communication link may be established between an ***information processing apparatus*** (such as, for example, a personal computer 1 in Applicant's Fig. 1) and a ***predetermined apparatus*** (such as fax information providing apparatus 7, telephone set 8, PC-communication host adapter 9 and/or voice-mail handling apparatus 10) using ***information*** (such as an HTML web page) that is downloaded from an ***information providing apparatus*** (such as IP server 5 in Applicant's FIGS. 1 and 13) to the information processing apparatus.

Thus, it is possible to designate a communication method within information downloaded in an initial communication. For example, in the non-limiting embodiment illustrated in Applicant's Figure 1, it is feasible to specify, in advance, a communication method to communicate between personal computer 1 and any of devices 6, 7, 8, 9 or 10.

All independent claims now recite that the downloaded ***information*** includes not only a ***telephone number***[1] but also a ***designation of a communication method*** [2] that defines communications with the predetermined apparatus. Examples of communications methods include http, ftp and telnet. Applicant's claims define inventions in a variety of statutory categories, based on the proposition that the information specifies *not only* a ***telephone number***

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[1]In a preferred embodiment to which the claims should not be limited, the telephone number may be delineated by tags such as <TEL> ... .</TEL>; *see* Applicant's specification, paragraph bridging pages 26 and 27.

[2]*See* Applicant's specification; paragraph bridging pages 27 and 28; the claimed ***communication method*** is also referred to as a "communication procedure" or a "connection type." Examples include protocols such as ftp and telnet that are not inherently adapted to include hypertext/hyperlink tags; *see* specification at page 29, lines 2-11.

for a line leading to a predetermined apparatus, but also the ***communication method*** that defines communication with the predetermined apparatus on that line.

To expedite prosecution, Applicant has amended all independent claims to emphasize a distinguishing feature of the invention: ***that the telephone number and the communication method designation are embedded in text using tags*** (non-limiting examples: <A> and <TEL> referenced in the footnotes herein) ***in a language usable for describing link destinations*** (non-limiting example: HTML).

Applicant respectfully submits that this combination of features is not disclosed in or properly suggested by the cited references, considered either individually or in any reasonably motivated combination. Claim 1, being indicative of the other independent claims in this regard, now recites:

> 1. (Three Times Amended) A recording medium configured to record information described in a language usable for describing link destinations, wherein said information includes:
>
> a ***telephone number*** assigned to a line connected to a predetermined apparatus as a link destination; and
>
> a ***designation of a communication method*** defining communication with said predetermined apparatus ***via said line***;
>
> wherein the telephone number ***and*** the communication method designation ***are embedded in text using tags*** in the language usable for describing link destinations. (emphasis added)

The reference applied against all claims, the Mattaway *et al.* patent, has apparently been cited because of its recitation:

> ... According to various embodiments, the ***address information*** may comprise an electronic mail address, a network protocol address, or a ***telephone number***. The address information may also be in the form of ***hypertext markup language (HTML)***.[3]

However, Applicant is not merely claiming the use of a telephone number embedded in an HTML web page. Rather, Applicant's claims recite "information" including both:

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[3]Mattaway *et al.*; column 4, lines 7-11 (emphasis added).

(1) a *telephone number assigned to a line* connected to the predetermined apparatus ***and***

(2) a *designation of a communication method* to be used ***on that line***.

Concerning the designation of a communication method, the Office Action cites RFC 1738, which is merely a description of URLs (uniform resource locators), which constitutes "the syntax and semantics of formalized information for ***location*** and ***access*** of resources via the Internet."[4] Perhaps most pertinently, URLs begin with a "<scheme>", such as http, by which a web page may be accessed.

At first impression, the Mattaway *et al.* patent and RFC 1738 might appear to disclose both elements in Applicant's claims: a telephone number and a designation of a communication method. However, upon closer study it is clear that not all the limitations of Applicant's claims are disclosed in or suggested in the references.

Significantly, neither Mattaway *et al.* nor RFC 1738 disclose or suggest the required "a designation of a communication method defining communication ***with said predetermined apparatus via said line.***" Mattaway *et al.* merely teach a telephone number embedded in an HTML page without a particular communication method, and RFC 1738 teaches a communication method (the http "scheme") by which the ***web page***, not the claimed "predetermined apparatus," is accessed.

In other words, RFC 1738 merely shows hot to point at and access *a web page*; RFC 1738 does *not* disclose or suggest how to point at or access (communicate with) an *apparatus* on a line designated by a telephone number embedded in the web page. To summarize the

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[4]RFC 1738, Abstract [Page 1] (emphasis added).

shortcomings of RFC 1738 in this rejection: RFC 1738 "points at" something entirely different than what is claimed, and specifies a procedure for accessing something entirely different from what the claims require.

Applicant recognizes that RFC 1738 is combined with the Mattaway *et al.* patent to reject independent Claims 1 and 4. However, Mattaway *et al.* do not overcome the shortcomings of RFC 1738 in the context of the present invention. As noted above, the Mattaway *et al.* patent is cited for its apparent teaching of embedding a telephone number in an HTML web page, a telephone pointing to a real or virtual webphone.

However, nothing in the Mattaway *et al.* patent discloses or suggests the claimed designation of a *communication method* defining communication with a predetermined apparatus via said line. Mattaway's communication process is exemplified in the following passage from the Mattaway *et al.* patent (paragraph breaks added to emphasize Mattaway's separate steps):

> Each WebPhone client, may serve either as a calling party or a caller party, i.e. the party being called.
>
> The calling party transmits an on-line request packet to a connection/information server upon connection to an IP-based network, e.g. the Internet or an Intranet. The on-line request packet contains configuration and settings information, a unique E-mail address and a fixed or dynamically assigned IP address for the WebPhone client.
>
> The callee party, also~~;~~ ~~a~~ utilizing a WebPhone client, transmits a similar on-line request packet containing its respective configuration and setting information, E-mail address and IP address to the same or a different connection server upon connection to an IP-based network.
>
> The calling party originates a call by locating the callee party in a directory associated with either its own WebPhone client or the connection/information server to which it is connected. The callee party may be identified by alias, E-mail address or key word search criteria. Once the E-mail address of the calling party is identified, the calling party's WebPhone forwards a request packet to the connection/information server, the request packet containing the callee party's E-mail address. The connection/information server uses the E-mail address in the received request packet to locate the last known IP address assigned to the callee party. The connection/information

server then transmits to the calling party an information packet containing the IP address of the callee party.

Upon receipt of the located IP address from the connection server, the calling party's WebPhone client initiates a direct point-to-point communication link with the callee party by sending a call packet directly to the IP address of the callee party.

The callee party either accepts or rejects the call with appropriate response packets. If the call is accepted, a communication session is established directly between the caller and the callee, without intervention of the connection/information server.

The above scenario describes establishment of a communication link which originates and terminates with clients on an IP-based network.[5]

This extended process does not involve Applicant's claimed use of a designated ***communication method*** defining communication with the called webphone (again: the URL's "<scheme> defines a communication method for accessing a web page, not for accessing the called webphone).

Indeed, the Mattaway *et al.* patent *teaches away from* using a specialized or designated communication method:

> ***If the address information obtained by browser process 300 comprises a traditional PSTN telephone number,*** WebPhone client process 306 will supply the telephone number to connection server 252 of FIG. 2B. In one embodiment, connection server 252 recognizes the information as a telephone number and, using a look-up table algorithm matches a portion of the telephone number, such as the country code, area code or exchange, to an IP address representing a gateway which can establish a call over a circuit-switched network to the terminating apparatus represented by the telephone number. Such IP address is then returned to WebPhone client process 306. WebPhone client 306 then attempts to contact the gateway, e. g. gateway 218. In the illustrative embodiment, gateway 218 implements the WebPhone protocol and is capable of functioning as a WebPhone client process without a graphic user interface. In a manner previously described, gateway 218 then ***establishes a traditional call to the terminating apparatus specified by the telephone number*** and performs the functions of translating either analog or digital telephone signals to compressed packetized audio packets, and vice versa to effect

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[5]Mattaway *et al.*; paragraph bridging columns 7 and 8 (paragraph breaks added; emphasis added).

> communication between the WebPhone client process and the terminating apparatus, i.e., a telephone 214.[6]

Thus, if Mattaway's web page includes a designation of a telephone number, a "traditional call," and not Applicant's claimed ***designated*** communication method, is established.

Finally, each independent claim now recites that the telephone number and designated communication method are "***are embedded in text using tags*** in the language usable for describing link destinations." That is, both a telephone number of a telephone line leading to an apparatus that may be called, and a designated communication method for communication with the apparatus over that telephone line, are embedded in text of (for example) a web page that may be written in HTML (a language usable for describing link destinations). Although the Mattaway *et al.* patent may describe embedding a telephone number in a web page, neither the Mattaway *et al.* patent nor RFC 1738 disclose or suggest embedding a designation of a communication method, in text, using tags, as claimed.

At least because neither reference discloses or suggests embedding a designation of a communication method to an apparatus, in text using tags, the combination of references cannot reasonably be said to disclose or suggest this feature. By implication, because one claimed feature is not disclosed or suggested by the cited art considered either individually or in combination, the combination of limitations recited in Applicant's independent claims is not disclosed or suggested by the references. References other than RFC 1738 and the Mattaway *et al.* patent, being cited for reasons not relating to the issues discussed above, do not overcome the shortcomings of the two references discussed above. Accordingly, for at least the foregoing reasons, reconsideration and withdrawal of the art rejections are respectfully requested.

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[6]Mattaway *et al.*; column 10 lines 44-67 (emphasis added).

In view of the present amendment and in light of the foregoing discussion, it is respectfully submitted that the pending claims are allowable and that the case is in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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ATTACHMENT

SHOWING CHANGES TO APPLICATION

1. (Three Times Amended) A recording medium configured to record information described in a language usable for describing link destinations, wherein said information includes:

a telephone number assigned to a line connected to a predetermined apparatus as a link destination; and

a designation of a communication method defining communication with said predetermined apparatus via said line;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations.

2. (Three Times Amended) A recording medium according to claim 1 wherein:

said information is described in an HTML (Hyper Text Markup Language); and

said telephone number is described along with a telephone-number tag showing that what is described by said telephone number is a telephone line.

3. (cancelled)

4. (Three Times Amended) A transmission medium configured to transmit information described in a language usable for describing link destinations, wherein said information includes:

a telephone number assigned to a line connected to a predetermined apparatus as a link destination; and

a designation of a communication method defining communication with said predetermined apparatus via said line;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations.

5. (Three Times Amended) A transmission medium according to claim 4 wherein:

said information is described in an HTML (Hyper Text Markup Language); and

said telephone number is described along with a telephone-number tag showing that what is described by said telephone number is a telephone line.

6. (cancelled)

7. (Three Times Amended) An information processing apparatus configured to process information described in a language usable for describing link destinations, said apparatus comprising:

a) a receiver configured to receive said information transmitted by an information providing apparatus, the information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with the predetermined apparatus;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations;

b) a display configured to display said information received by said receiver;

c) a command device configured to specify a predetermined position in said information displayed by said display; and

d) a communication controller configured to establish a communication link with the predetermined apparatus, governed by the communication method, and based on the telephone number if said predetermined position specified by said command device is associated with said telephone number.

8. (Twice Amended) An information processing apparatus according to claim 7 wherein:

said information is described in an HTML (Hyper Text Markup Language);

said telephone number is described along with a telephone number tag showing that what is described thereby is a telephone line; and

a recognition device judges whether or not said telephone number is associated with said predetermined position based on said telephone-number tag.

9. (cancelled)

10. (Three Times Amended) An information processing apparatus configured to process information described in a language usable for describing link destinations, said apparatus comprising:

a) a receiver configured to receive said information transmitted by an information providing apparatus, the information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with said predetermined apparatus via said line;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations;

b) a display configured to display said information received by said receiver;

c) a command device configured to specify a predetermined position in said information displayed by said display;

d) a communication controller configured to establish a communication link with the predetermined apparatus based on the telephone number, if said predetermined position specified by said command device is associated with said telephone number; and

e) a telephone-number selector configured to select one from a plurality of telephone numbers in case plural telephone numbers are associated with said predetermined position.

11. (Three Times Amended) An information processing apparatus configured to process information described in a language usable for describing link destinations, said apparatus comprising:

a) a receiver configured to receive said information transmitted by an information providing apparatus, the information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with said predetermined apparatus via said line;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations;

b) a display configured to display said information received by said receiver;

c) a command device configured to specify a predetermined position in said information displayed by said display;

d) a communication controller configured to establish a communication link with the predetermined apparatus based on the telephone number, if said predetermined position specified by said command device is associated with said telephone number; and

e) a number adder configured to add a number required for international communication to a telephone number in case said telephone number is a telephone number of a foreign country.

12. (Amended) An information processing apparatus according to claim 7 further including a confirmation device configured to confirm that a communication link with said predetermined apparatus shall be established.

13. (Three Times Amended) An information processing apparatus configured to process information described in a language usable for describing link destinations, said apparatus comprising:

a) a receiver configured to receive said information transmitted by an information providing apparatus, the information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with said predetermined apparatus via said line;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations;

b) a display configured to display said information received by said receiver;

c) a command device configured to specify a predetermined position in said information displayed by said display; and

d) a communication controller configured to establish a communication link with the predetermined apparatus based on the telephone number, if said predetermined position specified by said command device is associated with said telephone number;

wherein said display also displays an estimated charge for a telephone call to communicate with said predetermined apparatus.

14. (Three Times Amended) An information processing apparatus configured to process information described in a language usable for describing link destinations, said apparatus comprising:

a) a receiver configured to receive said information transmitted by an information providing apparatus, the information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with said predetermined apparatus via said line;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations;

b) a display configured to display said information received by said receiver;

c) a command device configured to specify a predetermined position in said information displayed by said display; and

d) a communication controller configured to establish a communication link with the predetermined apparatus based on the telephone number, if said predetermined position specified by said command device is associated with said telephone number;

wherein:

said receiver receives said information transmitted by said information providing apparatus by way of a predetermined network after a communication link connecting said information processing apparatus to said predetermined network has been established;

said communication controller establishes a communication link connecting said information processing apparatus to said predetermined apparatus after a line connecting said information processing apparatus to said predetermined network has been cut off; and

said communication link connecting said information processing apparatus to said predetermined network is reestablished after communication with said predetermined apparatus has been completed.

15. (Three Times Amended) An information processing apparatus configured to process information described in a language usable for describing link destinations, said apparatus comprising:

a) a receiver configured to receive said information transmitted by an information providing apparatus, the information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with said predetermined apparatus via said line;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations;

b) a display configured to display said information received by said receiver;

c) a command device configured to specify a predetermined position in said information displayed by said display; and

d) a communication controller configured to establish a communication link with the predetermined apparatus based on the telephone number, if said predetermined position specified by said command device is associated with said telephone number;

wherein:

said receiver receives said information transmitted by said information providing apparatus by way of a predetermined network after a communication link connecting said information processing apparatus to said predetermined network has been established; and

in case an attempt made by said communication controller to establish a communication link connecting said information processing apparatus to said predetermined apparatus after cutting off a line connecting said information processing apparatus to said predetermined network ends in a failure, either an attempt to establish a communication link connecting said information processing apparatus to said predetermined apparatus is again made or said communication link connecting said information processing apparatus to said predetermined network is re-established.

16. (Amended) An information processing apparatus according to claim 15 wherein, in case said attempt made by said communication controller to establish a communication link connecting said information processing apparatus to said predetermined apparatus ends in a failure, said information processing apparatus is capable of selecting either processing to again make an attempt to establish a communication link connecting said information processing apparatus to said predetermined apparatus or processing to re-establish said communication link connecting said information processing apparatus to said predetermined network.

17. (Three Times Amended) A method for processing incoming information described in a language usable for describing link destinations, said method comprising:

receiving and displaying said information transmitted by an information providing apparatus, said information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with the predetermined apparatus;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations; and

establishing a communication link with the predetermined apparatus based on said telephone number if a predetermined position on said displayed information is indicated and said predetermined position is associated with said telephone number.

18. (Three times Amended) A recording medium configured to store a computer program to be executed by an information processing apparatus configured to process information described in a language usable for describing link destinations, said program comprising:

receiving and displaying said information transmitted by an information providing apparatus, said information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with the predetermined apparatus;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations; and

establishing a communication link connecting said information processing apparatus to the predetermined apparatus based on said telephone number if a predetermined position on said displayed information is indicated and said predetermined position is associated with said telephone number.

19. (Three Times Amended) A transmission medium configured to transmit a computer program to be executed by an information processing apparatus configured to process information described in a language usable for describing link destinations, said program comprising:

receiving and displaying said information transmitted by an information providing apparatus, said information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with the predetermined apparatus;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations; and

establishing a communication link connecting said information processing apparatus to the predetermined apparatus based on said telephone number if a predetermined position on said displayed information is indicated and said predetermined position is associated with said telephone number.

20. (Three Times Amended) An information providing apparatus comprising:

a recording medium configured to store information described in a language usable for describing link destinations; and

a transmitter configured to transmit said information in response to a request, wherein said information stored in said recording medium includes:

1) a telephone number assigned to a line connected to a predetermined apparatus as said link destination; and

2) a designation of a communication method defining communication with the predetermined apparatus;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations.

21. (Twice Amended) An information providing apparatus according to Claim 20 wherein:

said information is described in a HTML (Hyper Text Markup Language); and

said telephone number is described along with a telephone number tag indicating that a description thereof is a telephone line.

22. (cancelled)

23. (Three Times Amended) An information processing system comprising:

a) an information providing apparatus configured to provide information described in a language usable for describing link destinations, said information providing apparatus including:

a recording medium for storing information including (1) a telephone number assigned to a line connected to a predetermined apparatus as said link destination and (2) a designation of a communication method defining communication with the predetermined apparatus; wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations; and

a transmitter configured to transmit said information in response to a request received from an information processing apparatus,

b) said information processing apparatus, configured to receive and process said information, said information processing apparatus including:

a receiver configured to receive said information transmitted by said information providing apparatus;

a display configured to display said information received by said receiver;

a command device configured to specify a predetermined position in said information displayed by said display; and

a communication controller configured to establish a communication link connecting said information processing apparatus to the predetermined apparatus based on the telephone number if said predetermined position specified by said command device is associated with said telephone number.

24. (Twice Amended) An Internet appliance apparatus configured to process information described in a language usable for describing link destinations, said apparatus comprising:

a) a receiver configured to receive said information transmitted by an information providing apparatus, the information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with the predetermined apparatus;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations;

b) a display configured to display said information received by said receiver;

c) a command device configured to specify a predetermined position in said information displayed by said display; and

d) a communication controller configured to establish a communication link with the predetermined apparatus, governed by the communication method, and based on the telephone number if said predetermined position specified by said command device is associated with said telephone number.

25. (Twice Amended) A Web Browser program to be executed by an information processing apparatus configured to process information described in a language usable for describing link destinations, said program comprising:

receiving and displaying said information transmitted by an information providing apparatus, said information including:

1) a telephone number assigned to a line connected to a predetermined apparatus; and

2) a designation of a communication method defining communication with the predetermined apparatus;

wherein the telephone number and the communication method designation are embedded in text using tags in the language usable for describing link destinations; and

establishing a communication link connecting said information processing apparatus to the predetermined apparatus based on said telephone number if a predetermined position on said displayed information is indicated and said predetermined position is associated with said telephone number.